

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 January 2004 (08.01.2004)

PCT

(10) International Publication Number
WO 2004/002292 A3

(51) International Patent Classification⁷: **A61H 23/00**

(21) International Application Number:
PCT/US2003/020430

(22) International Filing Date: 27 June 2003 (27.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/392,468 27 June 2002 (27.06.2002) US

(71) Applicant (for all designated States except US): **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA** [US/US]; 1111 Franklin Street, 5th Floor, Oakland, CA 94607 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HARGENS, Alan, R.** [US/US]; 1640 Collingwood Drive, San Diego, CA 92109 (US). **TANAKA, Kunihiro** [JP/US]; 3550 Lebon Drive, #6318, San Diego, CA 92122 (US). **WALDIE, James** [AU/AU]; 58 Foley Street, Kew 3101, Melbourne, Victoria (AU).

(74) Agents: **PRATT, John, S. et al.**; Kilpatrick Stockton LLP, 1100 Peachtree Street, Suite 2800, Atlanta, GA 30309 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

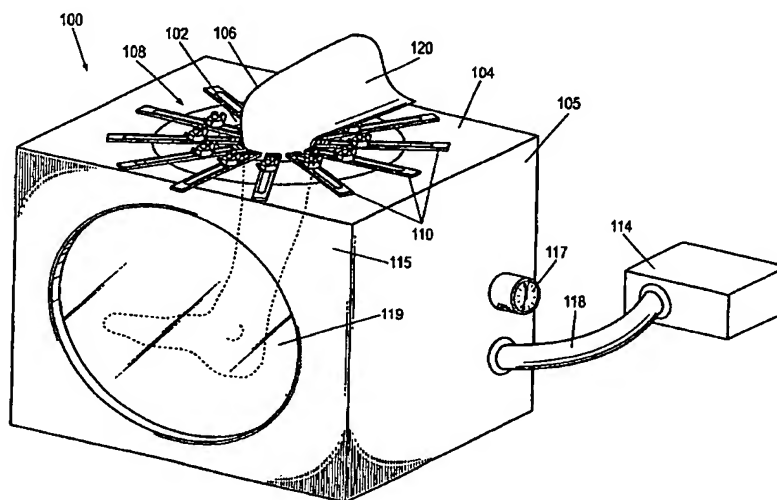
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

[Continued on next page]

(54) Title: **METHOD AND DEVICE TO ENHANCE SKIN BLOOD FLOW**



(57) Abstract: A hypobaric chamber (100) is adapted to receive the affected body part (120) to be treated through an entry port (102) formed in one wall (104) of the chamber (100). An aperture (106) is formed at the entry port (102) for creating a loose, non-occlusive seal around the body part (120) of the patient, the aperture (106) comprising an adjustable iris (108) formed from a pliable material (126) attached to the edges of the entry port (102) and having a center opening to which are attached the inner ends of a plurality of iris leaves or slides (110). The pliable material (126) is stretched between the edges of the entry port (102) and the inner ends of the slides (110) to form a diaphragm-like structure. In the preferred embodiment, the pliable material (126) is latex or some other rubber-like material. The seal is adjustable by moving the slides (110) radially to adjust the portion of the port (102) that is covered by the pliable material (126). The inner edges of the slides (110) are positioned so that a small gap exists between the skin and the edge of the seal, allowing unrestricted air flow-through.